AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended) A multideposition sub-atmospheric chemical vapor deposition (SACVD) reactor comprising:

a substrate processing chamber;

a carbon susceptor adapted to hold a substrate in said substrate processing chamber during a SACVD operation, wherein said carbon susceptor is coated by a polysilicon film to protect it against said cleaning gases, wherein said polysilicon coating comprises a bottom polysilicon coating and a top polysilicon coating of different thicknesses, and said bottom polysilicon coating has a thickness of about 4 μm and said top polysilicon coating has a thickness of about 1.5 μm;

a gas distribution system including appropriate valves, gas supply lines and other equipment adapted to flow gases into said substrate processing chamber, wherein said gases include dielectric and non-dielectric forming gases and in-situ cleaning gases that are aggressive to carbon;

a heating system to heat said susceptor to an adequate deposition temperature;

a pressurization system adapted to set a pressure level within said substrate processing chamber; and

a controller coupled to said gas distribution system and pressurization system for directing operation of said SACVD reactor.

Claim 2 (original) The SACVD reactor of claim 1 wherein said dielectric material is Si_3N_4 and said forming gas is a SiH_4/NH_3 mixture.

Claim 3 (original) The SACVD reactor of claim 1 wherein said dielectric material is SiO_2 and said forming gas is a SiH_4/NO_2 mixture.

Claim 4 (original) The SACVD reactor of claim 1 wherein said dielectric material is SiON and said forming gas is either a $DCS/N_2O/NH_3$ mixture or a $SiH_4/N_2O/NH_3$ mixture.

Claim 5 (original) The SACVD reactor of claim 1 wherein said non-dielectric material is doped polysilicon and said forming gas is a SiH_4/PH_3 mixture.

Claim 6 (original) The SACVD reactor of claim 2 wherein said cleaning gases are selected from the group consisting of NF_3 and HCl.

Claim 7 (original) The SACVD reactor of claim 1 wherein said dielectric material is Si_3N_4 and said deposition is performed in a Centura HTF reactor at a pressure of about 80 Torr to about 150 Torr, at a temperature of about 650 °C to about 800 °C, with a NH_3 flow of about 3.2 slm, with a SiH_4 flow of about 30 sccm, with a N_2 flow of about 5 slm, and for a duration of about 5 min.

Claim 8 (original) The SACVD reactor of claim 1 wherein said dielectric material is SiO_2 and said deposition is performed in a Centura HTF reactor at a pressure of about 50 Torr to about 100 Torr, at a temperature of about 600 °C to about 900 °C, with a SiH_4 flow of about 60 sccm, with a N_2O flow of about 2.8 slm, and with a N_2 flow of about 9.2 slm.

Claim 9 (original) The SACVD reactor of claim 1 wherein said dielectric material is SiON and said deposition is performed in a Centura HTF reactor at a pressure of about 80 Torr to about 150 Torr, at a temperature of about 650 °C to about 800 °C, with a NH_3 flow of about 1 slm, with a DCS flow of about 200 sccm, with a N_2O flow of about 2.8 slm, and with a N_2 flow of about 5 slm.

Claims 10-14 (previously canceled)

Claim 15 (currently canceled)

Claim 16 (allowed) A susceptor for dielectric and non-dielectric material deposition in a SACVD reactor resistant to NF_3 attack comprising a carbon plate coated by a polysilicon film,

wherein said polysilicon coating comprises a bottom polysilicon coating and a top polysilicon coating of different thicknesses, and said bottom polysilicon coating has a thickness of about 4 μm and said top polysilicon coating has a thickness of about 1.5 μm.

Claims 17-19 (currently canceled)

Claim 20 (previously presented) The SACVD reactor of Claim 1, wherein said substrate processing chamber has upper and lower volumes separated by said carbon susceptor, and said gas distribution system includes first and second gas injection means for respectively injecting gases in the upper and lower volumes of the processing chamber.